Food Inc

Butter, Vitamin E and the ‘X‘ Factor of Dr. Price

by Royal Lee

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> *Dr. Royal Lee (click here to purchase bibliography) - scientist, inventor and nutrition researcher - is probably best known as the founder of Standard Process Laboratories, which specializes in the formulation of natural vitamins derived from food sources. This article, from the Lee Foundation for Nutritional Research, comes from the collection of Joseph Connolly, late husband of Patricia Connolly and one of the founders of the Price-Pottenger Nutrition Foundation.*

The special nutritional factors present in butter as known up to 1942 are without question. It was shown that butter has the following characteristics of superiority over other fats and oleomargarine imitations:

1. The nation’s best source of vitamin A.(2)
2. Unit for unit, the vitamin A in butter was three times as effective as the vitamin A in fish liver oils.(2)
3. The natural vitamin D in butter was found 100 times as effective as the common commercial form of D (viosterol).(3)
4. Butter, prescribed by physicians as a remedy for tuberculosis, psoriasis, xerophthalmia, dental caries, and in preventing rickets, has been promptly effective.(1)
5. Butter carries vitamin E in sufficient quantity to prevent deficiency reactions.(4,5)

Since that time, new and important evidence has accumulated which indicates other nutritional functions supplied by butter. This evidence appears to revolve around the physiological ramifications of the effects of the vitamin E complex.

Up to the present, vitamin E has been considered a tocopherol, and its function analyzed as nothing more than a physiological anti-oxidant.(7) It now appears evident that the real vitamin E is that factor in the E complex that is being protected from oxidation by the tocopherol group, and that the same mistake has been made in attributing E activity to tocopherols as in the case of the promotion of pure viosterol as vitamin D, ascorbic acid as vitamin C, niacin as the anti-pellagra vitamin, pyridoxine as B6, or folic acid as the anti-pernicious anemia fraction of liver. In each case the isolation of one factor as the “vitamin” in question has embarrassed the discoverer, in his assumption that he had discovered the “pot of gold” at the rainbow’s end, by the attribution of vitamin activity to some synthetic or pure crystalline component of a natural complex. No reasonable student of nutrition can today deny the axiom that all vitamins are complexes and cannot exert their normal physiological effect other than as the complete complex, as found in natural foods.

The true vitamin E is found in the chromatin material of the germinal tissues of plant and animal, and in young plants that are in a state of rapid growth. It seems to be a phospholipid carrying a

special fatty acid in combination that has heretofore traveled under the cognomen of vitamin F. (Vitamin F was first discovered as a part of the wheat germ oil vitamin complex; at least the term vitamin F was first used to designate the essential fatty acid fraction.)

The fact that an unsaturated fatty acid as vitamin F is a part of the E complex, probably in molecular combination, explains the close relationship between the two vitamins in their synergistic support of cell division in reproduction, in maintenance of epithelium (where cell division is also predominant), and in kidney and liver metabolism, both epithelial activities. It explains the fact that both are factors in calcium metabolism, vitamin E deficiency resulting in bone resorption8 just as vitamin F deficiency results in less calcium available to bone.(9)

Tocopherol administration in excess also results in bone-calcium loss, just as is caused by a deficiency of vitamin E.(8) So again we have more evidence that tocopherol is NOT the vitamin E, but rather a protector that can in excess reduce the availability of traces of the real vitamin. Now, just what IS the real function of the real vitamin E complex?

...A factor in young grass is apparently the same one as described by Dr. Weston A. Price, in the second edition of his book, (click on title to purchase) *Nutrition and Physical Degeneration*, which he called “Activator X” and was found only in butter from cows fed spring grass. “Activator X” seemed very susceptible to oxidation, being lost in the butter within a few months after its production. “Activator X” was shown to promote calcification and health of bones and teeth in human patients. It inhibited the growth of the caries bacillus (facto-bacillus acidophilus) completely, one test showing 680,000 salivary bacterial count before the use of “Activator X” and none after.

[Research shows] that this grass factor SUPPORTS THE DIFFERENTIATION OF SEXUAL DEVELOPMENT. Animals not getting the grass factor (but getting TOCOPHEROL) required 23% MORE time to become sexually mature.

It is highly interesting to find that tests of oleomargarine feeding to human subjects in comparison with commercial butter (having relatively low content of the fragile “X’ factor), HAD THE SAME EFFECT of failing to bring out the secondary sex characteristics: not only a delay, but a failure to promote sex changes in toto. Here are the results for children with ages up to 17 years: (10)

- 160 Children were fed oleo, 107 butter, over a period of two years.
- Average gain in weight on oleo for girls, 8.2 pounds.
- Yearly average growth in height, 2.2 inches.
- Girls on butter gained 6.3 pounds per year, grew 0.9 of an inch.
- Boys on oleo grew 2.2 inches per year, gained 8.1 pounds.
- On butter, boys gained 6.7 pounds, grew 1.6 inches.

A characteristic effect of castration of the child is a stimulation of growth and greater height. The investigators say the results vindicated oleo. What do YOU say?

... We all are what we are - men, women, white, black or yellow - simply because our growth and development is guided every minute by certain chemical factors in our cells, reproduced exactly in the chromosome, the real blueprints of our bodies. These factors - determinants to the geneticist -

are protected by wrappings or insulating layers of a fatty nature that prevent the enzymatic digestion or damage, otherwise inevitable, to which these factors are exposed. It is well known that chromosomes are destroyed and liquefied in vitamin E complex deficiency.

These determinants even seem to be secreted into the mouth in the saliva (that probably is how it happens that salivary gland cells have extraordinarily large chromosomes) to start the alteration of food factors into tissue as quickly as possible. It is quite analogous to the attachment to a lot of incoming steel as it enters a factory, of the blueprints that direct how it is to be processed to become the finished product....

It is obvious that any interference by vitamin or other deficiency with the determinant cycle will delay or impair the normal plan of development.

Do you wonder that your instincts demand butter over oleo?

Do you wonder that since yellow butter contains more “Activator X” than pale butter, people prefer the yellow kind that comes from spring grass feeding to the cow?

It is very interesting to note how nutritional experts and “scientists” have always been found to extol oleomargarine as equal to butter as a food. As far back as 1886, when oleo was first made, before vitamins were thought of, scientists testified that oleo was equal to butter in food value. They are still testifying, without knowing what new factors might still be found in butter which cause people to prefer it to oleo (over any period of time) even after milk and butter flavors have been added to oleo to create the best possible imitation of real butter.

Animal tests have shown oleo to better advantage than such human feeding tests as reported by Dr's. Leichenger, Eisenberg and Carlson. This is, no doubt, because milk proteins have always been used in any test diet along with oleo. Milk proteins carry the trace factors peculiar to milk that oleo lacks, and these cushion the deficiency reactions. The tests are about as honest scientifically as those on aluminum salts in baking powder, where the animals given the toxic aluminum salts were also fed an antidote??sodium silicate??under the guise of “mineral supplement.” Dr. H. J. Deuel, testifying before the House Committee on Agriculture in connection with hearings on oleomargarine in 1948, was quizzed on this point.(11)

Oleo has other drawbacks. It is a synthetic product, being hydrogenated vegetable fat. The hydrogenation destroys all associated vitamins or phospholipids. As it comes from the hydrogenator, it is admittedly unfit for food, has a vile odor and must be “refined.” The oleo, after the bad odors have been removed, and after flavoring with milk products to imitate butter, must then be preserved with a poisonous chemical, sodium benzoate, to keep it from again developing a bad flavor.

The use of sodium benzoate as a preservative in oleomargarine is brought to light in testimony before the official hearings on the oleomargarine tax repeal.(11) ... Note should be made that natural foodstuffs, such as butter, contain naturally occurring anti?oxidants such as the protector of vitamin E, alpha tocopherol. Presence of this anti-oxidant in butter makes it unnecessary to add synthetic and poisonous preservatives such as sodium benzoate. Oleo, however, being a synthetic product, is lacking in these natural preservatives; hence the necessity for the addition of the chemicals. No doubt the addition of vitamin E to oleo would preserve the product far better than

the sodium benzoate. Vitamin E, however, is far more expensive than sodium benzoate, which explains the use of the latter instead.

Such poisonous preservatives are not commonly permitted in foods, but the flour industry and the oleo industry seem to be specially favored. It is well known that Dr. Harvey W. Wiley, the first head of the Food and Drug Administration, lost his job in 1912 because he refused to be "reached" by food manufacturers like the oleo people, who could not exist without special permission to violate the law. When he told the entire sordid story of the unspeakable corruption and malignant chicanery that exists in the food and drug operations in Washington in his book, The History of a Crime Against the Pure Food Law, and published it at his own expense in 1930, little attention was paid to the matter by the newspapers. Since his death a year later, the books have been eliminated from circulation, and his still?surviving widow, by her ownership of the copyright, is "sitting on the lid" by refusing to permit reproduction or quotation of any part of the book.

The penalties for using a synthetic, imitation, chemically?embalmed substitute for butter seem to be quite drastic. Some appear to be:

1. Sexual castration for the growing child, in more or less degree, with oversized females fatter and taller than the boys. (Remember, meat animals are castrated for the purpose of making them fat.)
2. Loss of ability to maintain calcified structure such as teeth and bones. Dental caries, pyorrhea, arthritis, etc., would be logical end results that would inevitably follow, especially in view of the added influence of other refined and devitalized foods. Dr. Price's experience in curing arthritis, dental diseases and lowered resistance with good butter directly bears out this conclusion.
3. Evidence is accumulating to show that multiple sclerosis is a result of deficiencies in which vitamin E complex (as found in butter) is vitally involved.(12) Further, vitamin E is now found to be a remedy for the disorders of menopause(13), showing how these deficiency diseases follow their victim through life.

This list could be extended almost without limit - but we feel we have established our case.

Dr. Price cites the case of an Eskimo woman, "who had had twenty children so easily that she did not bother to wake her husband when the birth occurred at night. The daughter... had very narrow dental arches and a boyish type of body build. Unlike her mother, she had a very severe experience in the birth of her only child and insisted she would not take the risk of another.... Deformity due to the poor (nutritional) status of the parents may, of course, be a mild or severe character. The narrow arches, nostrils and hips, and the susceptibility to dental caries which Dr. Price found among primitive peoples who had shifted from a good tribal food pattern to a poor civilized food pattern should be rated as mild deformities, since they handicap the individual's ability to function without destroying his social validity."(14)

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